CLAIMS

What is claimed is:

1. A method for processing a plurality of records into a metric using a composition rule wherein the records and the metric are in the same format.
2. The method of claim 1 wherein the records are associated with a unit of work and the composition rule creates the metric from the records associated with the unit of work.
3. The method of claim 2 wherein one of the records is a sentinel record which contains an instruction to close the unit of work and apply the composition rule to the unit of work.
4. The method of claim 3 wherein the composition rule comprises a record selection rule and the record selection rule selects the records from a database using the syntax: "Tag Name" = ("Field1" = "Value" and "Field2" = "Value2").
5. The method of claim 4 wherein the composition rule comprises instructions for aggregating a measurement value for the records, instructions for normalizing a field and an attribute within the records, and instructions for composing the metric.
6. The method of claim 5 wherein the format allows a processing engine to meter a plurality of on demand service resources.
7. The method of claim 6 wherein the processing engine is location independent and language independent.
8. The method of claim 7 wherein the insertion of the record into the database and the application of the composition rule to the record occurs in real time.
9. The method of claim 8 wherein the storage of the record in the database and the application of the composition rule to the metric occurs in a single location.

10. The method of claim 9 wherein a plurality of the records from a plurality of on demand services are collaborated, wherein collaboration involves the application of the composition rule to the plurality of records.
11. The method of claim 10 wherein the record comprises: a fixed number of required fields and a variable number of attributes.
12. The method of claim 11 wherein the required fields comprise: a resource identification, a user identification, a measurement value, a unit of work identification, and a close unit of work flag.
13. The method of claim 11 wherein each attribute comprises a name and a value; wherein the name describes a type of attribute; and wherein the value is a measurement of the attribute.
14. The method of claim 11 wherein the required fields are stored in a record table in the database; wherein the attributes are stored in an attribute table in the data; and wherein a key correlates the required fields to the attributes.
15. The method of claim 11 wherein the composition rules are created using a user friendly graphical user interface.

16. A method for processing a record comprising:

determining if the record closes a unit of work;

responsive to the determination that the record closes the unit of work, applying a composition rule to the unit of work; and

wherein the composition rule aggregates and normalizes a plurality of records associated with the unit of work.

17. The method of claim 16 further comprising:

receiving a packet containing the plurality of records; and

obtaining the first record in the packet.

18. The method of claim 16 further comprising:

determining whether the record opens the unit of work; and

responsive to the determination that the record opens the unit of work, creating a unit of work entry in a unit of work table and labeling a unit of work entry state as open.

19. The method of claim 16 further comprising:

determining whether the record references the unit of work with the unit of work state that is closed or close pending; and

responsive to the determination that the record does not reference the unit of work with the unit of work state that is closed or close pending, saving the record in a database.

20. The method of claim 16 further comprising: responsive to the determination that the record closes the unit of work, changing the unit of work entry to close pending.

21. The method of claim 16 further comprising:

determining whether there is another record in the packet; and

responsive to a determination that there is another record in the packet, repeating the steps in claim 16.

22. The method of claim 16 wherein the composition rule comprises steps comprising:

obtaining a record selection rule associated with the composition rule;

applying the record selection rule to the database to obtain the plurality of records; and

aggregating a plurality of measurement values for the records, normalizing a plurality of fields in the records, and normalizing a plurality of attributes in the records to produce a metric.

23. The method of claim 22 further comprising: changing the unit of work state to closed.

24. The method of claim 23 wherein the record comprises: a fixed number of required fields and a variable number of attributes.

25. The method of claim 24 wherein the required fields comprise: a resource identification, a user identification, a measurement value, a unit of work identification, and a close unit of work flag.

26. The method of claim 24 wherein each attribute comprises a name and a value; wherein the name describes a type of attribute; and wherein the value is a measurement of the attribute.

27. The method of claim 24 wherein the required fields are stored in a record table in the database; wherein the attributes are stored in an attribute table in the data; and wherein a key correlates the required fields to the attributes.

28. A method for producing a metric comprising:

obtaining a record selection rule associated with a composition rule;

applying the record selection rule to a database to obtain a plurality of records; and

aggregating a plurality of measurement values for the records.

29. The method of claim 28 further comprising: normalizing a plurality of fields in the records.

30. The method of claim 28 further comprising: normalizing a plurality of attributes in the records.

31. The method of claim 28 further comprising: changing a unit of work state to closed.

32. The method of claim 28 wherein step of aggregating comprises: summing the measurement values of the records.

33. The method of claim 29 wherein step of normalizing comprises: selecting one field from the plurality of fields in the record to represent the plurality of fields.

34. The method of claim 30 wherein step of normalizing comprises: selecting an attribute from the plurality of attributes in the record to represent the plurality of attributes.

35. The method of claim 28 wherein the record comprises: a fixed number of required fields and a variable number of attributes.

36. The method of claim 35 wherein the required fields comprise: a resource identification, a user identification, a measurement value, a unit of work identification, and a close unit of work flag.

37. The method of claim 35 wherein each attribute comprises a name and a value; wherein the name describes a type of attribute; and wherein the value is a measurement of the attribute.

38. The method of claim 35 wherein the required fields are stored in a record table in the database; wherein the attributes are stored in an attribute table in the data; and wherein a key correlates the required fields to the attributes.

39. A program product operable on a computer comprising:

a computer-usable medium;

wherein the computer usable medium comprises instructions for a computer to perform steps comprising:

instructions for processing a plurality of records into a metric using a composition rule wherein the records and the metric are in the same format.

40. The program product of claim 39 wherein the records are associated with a unit of work and the composition rule creates the metric from the records associated with the unit of work.

41. The program product of claim 40 wherein one of the records is a sentinel record which contains an instruction to close the unit of work and apply the composition rule to the unit of work.

42. The program product of claim 41 wherein the composition rule comprises a record selection rule and the record selection rule selects the records from a database using the syntax: "Tag Name" = ("Field1" = "Value" and "Field2" = "Value2").

43. The program product of claim 42 wherein the composition rule comprises instructions for aggregating a measurement value for the records, instructions for normalizing a field and an attribute within the records, and instructions for composing the metric.

44. The program product of claim 43 wherein the format allows a processing engine to meter a plurality of on demand service resources.

45. The program product of claim 44 wherein the processing engine is location independent and language independent.

46. The program product of claim 45 wherein the insertion of the record into the database and the application of the composition rule to the record occurs in real time.

47. The program product of claim 46 wherein the storage of the record in the database and the application of the composition rule to the metric occurs in a single location.

48. The program product of claim 47 wherein a plurality of the records from a plurality of on demand services are collaborated, wherein collaboration involves the application of the composition rule to the plurality of records.

49. The program product of claim 48 wherein the record comprises: a fixed number of required fields and a variable number of attributes.

50. The program product of claim 49 wherein the required fields comprise: a resource identification, a user identification, a measurement value, a unit of work identification, and a close unit of work flag.

51. The program product of claim 50 wherein each attribute comprises a name and a value; wherein the name describes a type of attribute; and wherein the value is a measurement of the attribute.

52. The program product of claim 51 wherein the required fields are stored in a record table in the database; wherein the attributes are stored in an attribute table in the data; and wherein a key correlates the required fields to the attributes.

53. The program product of claim 52 wherein the composition rules are created using a user friendly graphical user interface.

54. A program product operable on a computer comprising:

a computer-usable medium;

wherein the computer usable medium comprises instructions for a computer to perform steps comprising:

instructions for determining if the record closes a unit of work;

responsive to the determination that the record closes the unit of work, instructions for applying a composition rule to the unit of work; and

wherein the composition rule aggregates and normalizes a plurality of records associated with the unit of work.

55. The program product of claim 54 further comprising:

instructions for receiving a packet containing the plurality of records; and

instructions for obtaining the first record in the packet.

56. The program product of claim 54 further comprising:

instructions for determining whether the record opens the unit of work; and

responsive to the determination that the record opens the unit of work, instructions for creating a unit of work entry in a unit of work table and labeling a unit of work entry state as open.

57. The program product of claim 54 further comprising:

instructions for determining whether the record references the unit of work with the unit of work state that is closed or close pending; and

responsive to the determination that the record does not reference the unit of work with the unit of work state that is closed or close pending, instructions for saving the record in a database.

58. The program product of claim 54 further comprising: responsive to the determination that the record closes the unit of work, instructions for changing the unit of work entry to close pending.

59. The program product of claim 54 further comprising:

instructions for determining whether there is another record in the packet; and

responsive to a determination that there is another record in the packet, instructions for repeating the steps in claim 54.

60. The program product of claim 54 wherein the composition rule comprises steps comprising:

instructions for obtaining a record selection rule associated with the composition rule;

instructions for applying the record selection rule to the database to obtain the plurality of records; and

instructions for aggregating a plurality of measurement values for the records, instructions for normalizing a plurality of fields in the records, and instructions for normalizing a plurality of attributes in the records to produce a metric.

61. The program product of claim 60 further comprising: instructions for changing the unit of work state to closed.

62. The program product of claim 61 wherein the record comprises: a fixed number of required fields and a variable number of attributes.

63. The program product of claim 62 wherein the required fields comprise: a resource identification, a user identification, a measurement value, a unit of work identification, and a close unit of work flag.

64. The program product of claim 62 wherein each attribute comprises a name and a value; wherein the name describes a type of attribute; and wherein the value is a measurement of the attribute.

65. The program product of claim 62 wherein the required fields are stored in a record table in the database; wherein the attributes are stored in an attribute table in the data; and wherein a key correlates the required fields to the attributes.

66. A program product operable on a computer comprising:

a computer-usable medium;

wherein the computer usable medium comprises instructions for a computer to perform steps comprising:

instructions for obtaining a record selection rule associated with a composition rule;

instructions for applying the record selection rule to a database to obtain a plurality of records; and

instructions for aggregating a plurality of measurement values for the records.

67. The program product of claim 66 further comprising: instructions for normalizing a plurality of fields in the records.

68. The program product of claim 66 further comprising: instructions for normalizing a plurality of attributes in the records.

69. The program product of claim 66 further comprising: instructions for changing a unit of work state to closed.

70. The program product of claim 66 wherein step of aggregating comprises: instructions for summing the measurement values of the records.

71. The program product of claim 67 wherein step of normalizing comprises: instructions for selecting one field from the plurality of fields in the record to represent the plurality of fields.

72. The program product of claim 68 wherein step of normalizing comprises: instructions for selecting an attribute from the plurality of attributes in the record to represent the plurality of attributes.

73. The program product of claim 66 wherein the record comprises: a fixed number of required fields and a variable number of attributes.

74. The program product of claim 73 wherein the required fields comprise: a resource identification, a user identification, a measurement value, a unit of work identification, and a close unit of work flag.

75. The program product of claim 74 wherein each attribute comprises a name and a value; wherein the name describes a type of attribute; and wherein the value is a measurement of the attribute.

76. The program product of claim 74 wherein the required fields are stored in a record table in the database; wherein the attributes are stored in an attribute table in the data; and wherein a key correlates the required fields to the attributes.